CENTRAL INTELLIGENCE AGENCY

SECRET

INFORMATION REPORT

REPORT [redacted]

COUNTRY Germany (Russian Zone)

SUBJECT Turbine Vane Design of the B.M.W. 018 Engine

CONFIDENTIAL

PLACE ACQUIRED [redacted]

DATE OF I [redacted]

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SUPPLEMENT TO REPORT NO.

50X1-HUM

[redacted]

THIS IS UNEVALUATED INFORMATION FOR THE RESEARCH USE OF TRAINED INTELLIGENCE ANALYSTS

50X1-HUM

[redacted]

1. The Russian officer in charge of the B.M.W.-Kalag Shaft #6 Neustassfurt, up to the time of its transfer to the U.S.S.R., Lt. Col. Engineer Isayev, is now in charge of the re-built plant at Kuibyshev.

2. The following B.M.W. technicians were among the 200 transferred to Kuibyshev on 22 October 1946:

   a. Ing. Gassenmair, in charge at Stassfurt of the construction of the "Anlassantrieb (starter)" and "Einsatzmantel (Haube)" for the B.M.W. 018 turbo-jet propulsion unit.

   b. Paul Kirschner, aircraft designer and Gassenmair's deputy.

3. Up to the time of transfer, three B.M.W. 003 and three B.M.W. 018 turbo-jet units were satisfactorily built and sent to Kuiyshev. These models incorporated experience gained during the post-war period of development.

4. [redacted] the Russians 50X1-HUM have started serial production of the B.M.W. 018 at Kuibyshev.

5. Attached is a sectional drawing of the B.M.W. 018 "Leitschaufel" as successfully constructed prior to the transfer of the works to the U.S.S.R. The following description amplifies the drawing:

   The measurements given in the drawing are correct except for the one noted with question mark. The broken line is marked "unmasstäblich" (not drawn to scale) because the exact data were not available at the time the drawing was made. The turbine vane as drawn here is the one which was used in the BMW turbine 018 and was constructed in July 1946. After successful tests of this vane, the plant was dismantled by the Russians. In previous tests, tin of 1.5 mm thickness had been used for the vane, which was completely deformed when the jet engine was tested. In the successful design, the thickness was increased to 2mm and at the same time the curvature of the vane was

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changed from 3°14' to 3°28'. After installation of these modified vanes, the engine made a test run for 48 hours. An examination of the material and of the performance proved that this design was satisfactory and the Russians accepted it.

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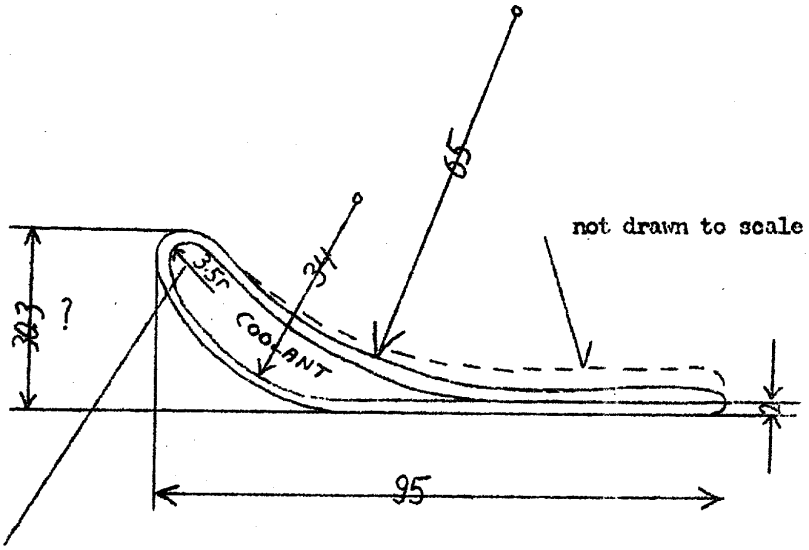
ATTACHMENT I

Guide Vane of Jet Engine 018



At this point the vane is turned up at an angle of 3°28'.

SCALE 1 : 1